

PTO/SB/21 (09-04) *ITW***TRANSMITTAL
FORM**

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

Application Number	10/789,472
Filing Date	February 27, 2004
First Named Inventor	Ohata, Hideo
Art Unit	2171
Examiner Name	Unassigned
Attorney Docket Number	16869S-107900US

ENCLOSURES (Check all that apply)

- | | | |
|--|--|---|
| <input type="checkbox"/> Fee Transmittal Form
<input type="checkbox"/> Fee Attached
<input type="checkbox"/> Amendment/Reply
<input type="checkbox"/> After Final
<input type="checkbox"/> Affidavits/declaration(s)
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<input type="checkbox"/> Express Abandonment Request
<input type="checkbox"/> Information Disclosure Statement

<input type="checkbox"/> Certified Copy of Priority Document(s)
<input type="checkbox"/> Reply to Missing Parts/ Incomplete Application
<input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53 | <input type="checkbox"/> Drawing(s)
<input type="checkbox"/> Licensing-related Papers
<input checked="" type="checkbox"/> Petition
<input type="checkbox"/> Petition to Convert to a Provisional Application
<input type="checkbox"/> Power of Attorney, Revocation
Change of Correspondence Address
<input type="checkbox"/> Terminal Disclaimer
<input type="checkbox"/> Request for Refund
<input type="checkbox"/> CD, Number of CD(s) _____
<input type="checkbox"/> Landscape Table on CD | <input type="checkbox"/> After Allowance Communication to TC
<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
<input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)
<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Status Letter
<input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):
Exhibit A, Table of Contents, and 4 refs.
Return Postcard |
|--|--|---|
- ☐ Remarks The Commissioner is authorized to charge any additional fees to Deposit Account 20-1430.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	Townsend and Townsend and Crew LLP		
Signature			
Printed name	George B. F. Yee		
Date	September 13, 2005	Reg. No.	37,478

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

Signature			
Typed or printed name	Cynthia McKinley	Date	September 13, 2005

SEP 15 2005

PATENT & TRADEMARK OFFICE

PTO/SB/17 (12-04)

Effective on 12/08/2004.

Enacted pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

FEE TRANSMITTAL

For FY 2005

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 130

Complete if Known

Application Number 10/789,472
 Filing Date February 27, 2004
 First Named Inventor Ohata, Hideo
 Examiner Name Unassigned
 Art Unit 2171
 Attorney Docket No. 16869S-107900US

METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____

☒ Deposit Account Deposit Account Number: 20-1430 Deposit Account Name: Townsend and Townsend and Crew LLP

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, except for the filing fee

☒ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☒ Credit any overpayments

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038

FEE CALCULATION

1. BASIC FILING, SEARCH, AND EXAMINATION FEES

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Small Entity	Fee (\$)	Small Entity	Fee (\$)	Small Entity	Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description	Small Entity	Fee (\$)	Fee (\$)
Each claim over 20 or, for Reissues, each claim over 20 and more than in the original patent	50	25	
Each independent claim over 3 or, for Reissues, each independent claim more than in the original patent	200	100	
Multiple dependent claims	360	180	

Total Claims **Extra Claims** **Fee (\$)** **Fee Paid (\$)** **Multiple Dependent Claims**
 _____ -20 or HP = _____ x _____ = _____
 HP = highest number of total claims paid for, if greater than 20
Indep. Claims **Extra Claims** **Fee (\$)** **Fee Paid (\$)**
 _____ -3 or HP = _____ x _____ = _____
 HP = highest number of independent claims paid for, if greater than 3

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets **Extra Sheets** **Number of each additional 50 or fraction thereof** **Fee (\$)** **Fee Paid (\$)**
 _____ - 100 = _____ / 50 = _____ (round up to a whole number) x _____ = _____

4. OTHER FEE(S)

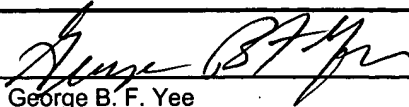
Non-English Specification, \$130 fee (no small entity discount)

Other: Petition

Fees Paid (\$)

130

SUBMITTED BY

Signature		Registration No. (Attorney/Agent) 37,478	Telephone 650-326-2400
Name (Print/Type)	George B. F. Yee		Date September 13, 2005



PATENT
Docket No.: 16869S-107900US
Client Ref. No.: W1415-01EI

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

PE

In re application of:

Hideo Ohata et al.

Application No.: 10/789,472

Filed: February 27, 2004

For: Method and Program of Collecting
Performance Data for Storage Network

Customer No.: 20350

Confirmation No. 8527

Examiner: Unassigned

Technology Center/Art Unit: 2171

PETITION TO MAKE SPECIAL FOR
NEW APPLICATION PURSUANT TO
37 C.F.R. § 1.102(d) &
M.P.E.P. § 708.02, Item VIII,
ACCELERATED EXAMINATION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This is a petition to make special the above-identified application in accordance with MPEP § 708.02, Item VIII, accelerated examination. The application has not received any examination by the Examiner.

(A) The Commissioner is authorized to charge the petition fee of \$130 under 37 C.F.R. § 1.17(h), and any additional fees that may be associated with this petition may be charged to Deposit Account No. 20-1430.

(B) All the claims are believed to be directed to a single invention. If the examiner determines that all the claims presented are not obviously directed to a single invention, then Applicant will make an election without traverse as a prerequisite to the grant of special status where the specific grouping of claims will be determined by the examiner.

09/16/2005 EFLORES 00000014 201430 10789472
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(C) A pre-examination search was performed by an independent patent search firm. The pre-examination search includes a classification search, a computer database search, and a keyword search. The classification search covered the following classes and sub-classes:

709/ 203, 223, 224, 237
714/ 47

Additionally, a computer database search was conducted on the USPTO systems EAST and WEST. The following references were identified in the search report:

- (1) U.S. Patent No.:
6,609,083 Enck et al.
- (2) U.S. Patent Application Publication Nos.:
2004/0102925 Giffords
2005/0086554 Simes
2005/0076113 Klotz et al.

(D) The above references are enclosed herewith, collectively as Exhibit A.

(E) Set forth below is a detailed discussion of the references, pointing out with particularity how the claimed subject matter recited in the claims, amended according to the preliminary amendment filed herewith, is distinguishable over the references.

Claimed Subject Matter of the Present Invention

There are five independent claims among the eighteen pending claims, as amended in a preliminary amendment that is being filed separately from this petition to make special, but concurrently with this petition to make special.

Independent claim 1 recites a method of collecting the performance data for a storage network including at least a computer, at least a storage, and at least a network device. The method includes collecting performance data from at least a selected one of the computer, the storage, or the network device, and changing a selected one of the frequency or the range of collecting the performance data based on the collected performance data and the conditions set for the performance data collection.

Independent claim 2 recites method for a storage network system including at least one computer system, at least one external storage, and at least one network device. The method includes determining the timing of updating a selected one of the time interval or the requirement of performance data collection, based on performance data collected in advance. The method further includes determining the timing of updating a selected one of the time interval or the requirement of performance data collection, based on the performance data collected in advance. The method further includes selecting an updated element of which a selected one of the time interval or the requirement of performance data collection is to be changed, from a plurality of elements for which the performance data is to be collected. The method further includes determining a selected one of the requirement or the time interval of performance data collection for the selected elements. The method further includes updating a selected one of the time interval or the frequency of performance data collection while at the same time updating the frequency of performance data collection in accordance with the timing.

Independent claim 16 recites a method in a storage network system including at least one computer system, at least one external storage and at least one network device for collecting performance data for a selected one of the computer system, the external storage, or the network device. The method includes determining the timing of changing a selected one of the time interval or the requirement of performance data collection based on the performance data collected in advance and an instruction from a user. The method further includes selecting, from the elements for which the performance data is to be collected, an element of which a selected one of the time interval or the requirement of performance data collection is to be changed, based on the information defining the performance interdependency relation between the collected elements stored in advance and the information on the range of performance data collection designated by the user. The method further includes determining a selected one of the time interval or the requirement of performance data collection for the selected element. The method further includes updating the frequency of performance data collection in accordance with a selected one of the time interval or the requirement of performance data collection and the timing.

Independent claim 17 recites a program for collecting performance data. The program performs a step of receiving information including a resource for which the performance data is to be collected, a metrics constituting an item of performance data collection of the resource, and the range and the time interval of performance data collection in a storage network including the resource. The program performs a step of reading previously stored data defining the performance interdependency relation between the resources, and selecting a resource for which the time interval of performance data collection is to be updated, based on the information defining the performance interdependency relation between the resources and the received performance data collection range. The program determines the time interval of performance data collection for the selected resource based on the received time interval of performance data collection and transmits a performance data collection instruction from the resource selected in accordance with the determined time interval of performance data collection.

Independent claim 18 recites a system for collecting the performance data. The system includes means for receiving information including a resource for which the performance data is to be collected, a metrics constituting an item of performance data collection of the resource, and the range and the time interval of performance data collection in a storage network including the resource. The system further includes means for reading the data defining the performance interdependency relation between the resources. The system further includes means for selecting a resource for which the time interval of performance data collection is to be updated, based on the read information defining the performance interdependency relation between the resources and the performance data collection range. The system further includes means for determining the time interval of performance data collection for the selected resource and means for transmitting a performance data collection instruction from the resource selected in accordance with the determined time interval of performance data collection.

U.S. Patent No. 6,609,083 Enck et al.

The patent to Enck et al. (6,609,083 B2), assigned to Hewlett-Packard Development Company, L.P., provides for an Adaptive Performance Data Measurement and Collections. Disclosed is a method for collecting performance data relating to a system and for

dynamically adjusting data measurement parameters based on a system condition indicated by the collected performance data. More specifically, data collection is adjusted in terms of the frequency with which data is collected and quantity of which data is collected. In the disclosed example, a base level of eight metrics acquired every five minutes is increased if performance data indicates a system condition requiring further attention. Also disclosed is a means for filtering and thereby accessing a subset of the collected data. The disclosed invention is implemented in a computer-based system comprised of a computer; persistent and/or transient storage elements, and in one embodiment is integrated in a network management system (see figure 1; and column 5, lines 22-29 and 53-58; column 6, lines 7-17; and column 7, lines 3-12 and 28-31).

As to **claim 1**, the reference does not teach or suggest a method of collecting the performance data for a storage network. The reference does not teach or suggest changing a selected one of the frequency or the range of collecting the performance data based on the collected performance data and the conditions set for the performance data collection.

As to **claim 2**, the reference does not teach or suggest determining the timing of updating a selected one of the time interval or the requirement of performance data collection, based on performance data collected in advance. The reference does not teach or suggest selecting an updated element of which a selected one of the time interval or the requirement of performance data collection is to be changed, where the selection is made from a plurality of elements for which the performance data is to be collected. The reference does not teach or suggest updating a selected one of the time interval or the frequency of performance data collection while at the same time updating the frequency of performance data collection in accordance with the timing,

As to **claim 16**, the reference does not teach or suggest determining the timing of changing a selected one of the time interval or the requirement of performance data collection based on the performance data collected in advance and an instruction from a user. The reference does not teach or suggest selecting an element of which a selected one of the time interval or the requirement of performance data collection is to be changed, based on the information defining the performance interdependency relation between the collected elements

stored in advance and the information on the range of performance data collection designated by the user. The reference does not teach or suggest updating the frequency of performance data collection in accordance with a selected one of the time interval or the requirement of performance data collection and the timing.

As to **claim 17**, the reference does not teach or suggest a program for receiving information including a resource for which the performance data is to be collected, a metrics constituting an item of performance data collection of the resource, and the range and the time interval of performance data collection in a storage network including the resource. The reference does not teach or suggest that the program performs a step of reading previously stored data defining the performance interdependency relation between the resources, and selecting a resource for which the time interval of performance data collection is to be updated, based on the information defining the performance interdependency relation between the resources and the received performance data collection range. The reference does not teach or suggest that the program determines the time interval of performance data collection for the selected resource based on the received time interval of performance data collection and transmits a performance data collection instruction from the resource selected in accordance with the determined time interval of performance data collection.

As to **claim 18**, the reference does not teach or suggest means for receiving information including a resource for which the performance data is to be collected, a metrics constituting an item of performance data collection of the resource, and the range and the time interval of performance data collection in a storage network including the resource. The reference does not teach or suggest means for selecting a resource for which the time interval of performance data collection is to be updated, based on the read information defining the performance interdependency relation between the resources and the performance data collection range. The reference does not teach or suggest means for determining the time interval of performance data collection for the selected resource and means for transmitting a performance data collection instruction from the resource selected in accordance with the determined time interval of performance data collection.

U.S. Patent Application Publication No. 2004/0102925 Giffords

The patent to Giffords (2004/0102925 A1) provides for Storage System Performance Metric Comparison Methods, Storage System Performance Monitoring Systems, Data Storage Systems, Articles of Manufacture, and Data Signals. Disclosed is a method of obtaining performance metric data from data storage systems. A monitoring system including a plurality of host agents and a management station is utilized to individually monitor and interface with a plurality of storage systems. Specifically, monitored storage systems are configured to provide performance metric data according to a timing pattern, wherein metric data is provided on variable minute intervals known as timing values. Disclosed examples show storage systems providing data values at five and eight minute intervals (see paragraphs 28, 30, and 34).

As to **claim 1**, the reference does not teach or suggest a method of collecting the performance data that includes changing a selected one of the frequency or the range of collecting the performance data based on the collected performance data and the conditions set for the performance data collection.

As to **claim 2**, the reference does not teach or suggest determining the timing of updating a selected one of the time interval or the requirement of performance data collection, based on performance data collected in advance. The reference does not teach or suggest selecting an updated element of which a selected one of the time interval or the requirement of performance data collection is to be changed, where the selection is made from a plurality of elements for which the performance data is to be collected. The reference does not teach or suggest updating a selected one of the time interval or the frequency of performance data collection while at the same time updating the frequency of performance data collection in accordance with the timing,

As to **claim 16**, the reference does not teach or suggest determining the timing of changing a selected one of the time interval or the requirement of performance data collection based on the performance data collected in advance and an instruction from a user. The reference does not teach or suggest selecting an element of which a selected one of the time interval or the requirement of performance data collection is to be changed, based on the information defining the performance interdependency relation between the collected elements

stored in advance and the information on the range of performance data collection designated by the user. The reference does not teach or suggest updating the frequency of performance data collection in accordance with a selected one of the time interval or the requirement of performance data collection and the timing.

As to **claim 17**, the reference does not teach or suggest a program for receiving information including a resource for which the performance data is to be collected, a metrics constituting an item of performance data collection of the resource, and the range and the time interval of performance data collection in a storage network including the resource. The reference does not teach or suggest that the program performs a step of reading previously stored data defining the performance interdependency relation between the resources, and selecting a resource for which the time interval of performance data collection is to be updated, based on the information defining the performance interdependency relation between the resources and the received performance data collection range. The reference does not teach or suggest that the program determines the time interval of performance data collection for the selected resource based on the received time interval of performance data collection and transmits a performance data collection instruction from the resource selected in accordance with the determined time interval of performance data collection.

As to **claim 18**, the reference does not teach or suggest means for receiving information including a resource for which the performance data is to be collected, a metrics constituting an item of performance data collection of the resource, and the range and the time interval of performance data collection in a storage network including the resource. The reference does not teach or suggest means for selecting a resource for which the time interval of performance data collection is to be updated, based on the read information defining the performance interdependency relation between the resources and the performance data collection range. The reference does not teach or suggest means for determining the time interval of performance data collection for the selected resource and means for transmitting a performance data collection instruction from the resource selected in accordance with the determined time interval of performance data collection.

U.S. Patent Application Publication No. 2005/0086554 Simes

The patent application publication to Simes (2005/0086554 A1) provides for a Retrieving Performance Data from Devices in a Storage Area Network. Disclosed is a performance interface for communicating with different types of SAN devices in a SAN environment. Specifically, the performance interface instructs a device plug-in as to a minimum and maximum polling interval over which performance metric data is obtained from at least one SAN device. In other words, performance data is obtained from a SAN device or devices at a rate that is more frequent than the minimum polling interval and less frequent than the maximum polling interval. The disclosed minimum and maximum polling intervals are determined by the performance interface such that SAN devices are accurately polled by a performance application (see paragraphs 4, 17, and 18).

As to **claim 1**, the reference does not teach or suggest a method of collecting the performance data that includes changing a selected one of the frequency or the range of collecting the performance data based on the collected performance data and the conditions set for the performance data collection.

As to **claim 2**, the reference does not teach or suggest determining the timing of updating a selected one of the time interval or the requirement of performance data collection, based on performance data collected in advance. The reference does not teach or suggest selecting an updated element of which a selected one of the time interval or the requirement of performance data collection is to be changed, where the selection is made from a plurality of elements for which the performance data is to be collected. The reference does not teach or suggest updating a selected one of the time interval or the frequency of performance data collection while at the same time updating the frequency of performance data collection in accordance with the timing,

As to **claim 16**, the reference does not teach or suggest determining the timing of changing a selected one of the time interval or the requirement of performance data collection based on the performance data collected in advance and an instruction from a user. The reference does not teach or suggest selecting an element of which a selected one of the time interval or the requirement of performance data collection is to be changed, based on the

information defining the performance interdependency relation between the collected elements stored in advance and the information on the range of performance data collection designated by the user. The reference does not teach or suggest updating the frequency of performance data collection in accordance with a selected one of the time interval or the requirement of performance data collection and the timing.

As to **claim 17**, the reference does not teach or suggest a program for receiving information including a resource for which the performance data is to be collected, a metrics constituting an item of performance data collection of the resource, and the range and the time interval of performance data collection in a storage network including the resource. The reference does not teach or suggest that the program performs a step of reading previously stored data defining the performance interdependency relation between the resources, and selecting a resource for which the time interval of performance data collection is to be updated, based on the information defining the performance interdependency relation between the resources and the received performance data collection range. The reference does not teach or suggest that the program determines the time interval of performance data collection for the selected resource based on the received time interval of performance data collection and transmits a performance data collection instruction from the resource selected in accordance with the determined time interval of performance data collection.

As to **claim 18**, the reference does not teach or suggest means for receiving information including a resource for which the performance data is to be collected, a metrics constituting an item of performance data collection of the resource, and the range and the time interval of performance data collection in a storage network including the resource. The reference does not teach or suggest means for selecting a resource for which the time interval of performance data collection is to be updated, based on the read information defining the performance interdependency relation between the resources and the performance data collection range. The reference does not teach or suggest means for determining the time interval of performance data collection for the selected resource and means for transmitting a performance data collection instruction from the resource selected in accordance with the determined time interval of performance data collection.

U.S. Patent Application Publication No. 2005/0076113 Klotz et al.

The patent application publication to Klotz et al. (2005/0076113 A1), assigned to Finisar Corporation, provides for a Network Analysis Sample Management Process. Disclosed is a method for adjusting the granularity of a network analysis sample. The method provides for determining a number of states for each storage device in a network and subsequently determining a number of time intervals over which performance data can be obtained. Based on trace data obtained by SANmetrics from selected storage devices, a user may choose to increase the granularity of time over which data is obtained. Also disclosed is a feature of SANmetrics that determines network topology and subsequently determines the status of each device on the network. Status information may then subsequently be used to determine statistics for the respective devices and performance metrics for communication between these network devices (see paragraphs 13, 34, 39, and 47).

As to **claim 1**, the reference does not teach or suggest a method of collecting the performance data that includes changing a selected one of the frequency or the range of collecting the performance data based on the collected performance data and the conditions set for the performance data collection.

As to **claim 2**, the reference does not teach or suggest determining the timing of updating a selected one of the time interval or the requirement of performance data collection, based on performance data collected in advance. The reference does not teach or suggest selecting an updated element of which a selected one of the time interval or the requirement of performance data collection is to be changed, where the selection is made from a plurality of elements for which the performance data is to be collected. The reference does not teach or suggest updating a selected one of the time interval or the frequency of performance data collection while at the same time updating the frequency of performance data collection in accordance with the timing,

As to **claim 16**, the reference does not teach or suggest determining the timing of changing a selected one of the time interval or the requirement of performance data collection based on the performance data collected in advance and an instruction from a user. The reference does not teach or suggest selecting an element of which a selected one of the time

interval or the requirement of performance data collection is to be changed, based on the information defining the performance interdependency relation between the collected elements stored in advance and the information on the range of performance data collection designated by the user. The reference does not teach or suggest updating the frequency of performance data collection in accordance with a selected one of the time interval or the requirement of performance data collection and the timing.

As to **claim 17**, the reference does not teach or suggest a program for receiving information including a resource for which the performance data is to be collected, a metrics constituting an item of performance data collection of the resource, and the range and the time interval of performance data collection in a storage network including the resource. The reference does not teach or suggest that the program performs a step of reading previously stored data defining the performance interdependency relation between the resources, and selecting a resource for which the time interval of performance data collection is to be updated, based on the information defining the performance interdependency relation between the resources and the received performance data collection range. The reference does not teach or suggest that the program determines the time interval of performance data collection for the selected resource based on the received time interval of performance data collection and transmits a performance data collection instruction from the resource selected in accordance with the determined time interval of performance data collection.

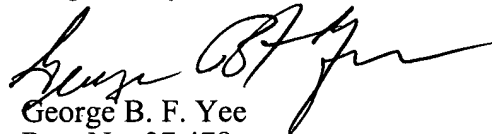
As to **claim 18**, the reference does not teach or suggest means for receiving information including a resource for which the performance data is to be collected, a metrics constituting an item of performance data collection of the resource, and the range and the time interval of performance data collection in a storage network including the resource. The reference does not teach or suggest means for selecting a resource for which the time interval of performance data collection is to be updated, based on the read information defining the performance interdependency relation between the resources and the performance data collection range. The reference does not teach or suggest means for determining the time interval of performance data collection for the selected resource and means for transmitting a performance

data collection instruction from the resource selected in accordance with the determined time interval of performance data collection.

Conclusion

In view of this comments presented in the instant petition, the Examiner is respectfully requested to issue a first Office Action at an early date.

Respectfully submitted,


George B. F. Yee
Reg. No. 37,478

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Attachments
GBFY:cmm
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